



United States
Department of
Agriculture
Forest Service

FOREST INSECT AND DISEASE MANAGEMENT

Technology Update

Southeastern Area, State and Private Forestry 1720 Peachtree Road, N.W., Atlanta, Ga. 30367

Southern Pine Beetle Fact Sheet Number 14

TBAP--TIMBER BENEFITS ANALYSIS PROGRAM

TBAP is a computerized procedure for calculating the monetary damages resulting from an insect attack. The program applies only to the insect's impact on the timber resource and should not be used to evaluate impacts on recreation, wildlife, or other resources. The model applies to several ownership categories--Federal, State, private nonindustrial, and industrial.

The program estimates the economic impact associated with the physical timber damage caused by an insect attack. The cash flows (costs and revenues) that are generated over time, under specific timber management schedules, are analyzed. Future costs and revenues are discounted to their present values, and a present net worth (PNW) is calculated.

Economic damage is defined as the difference between the PNW of the cash flows with and without an attack. The resulting economic impact may be positive or negative depending upon the nature of the attack, existing management schedules, and timber market conditions. TBAP is also used to apply a monetary value to a damaged stand after an attack has occurred.

The PNW of specific management schedules are estimated for the following sequence of events: 1) the original stand before the attack, 2) the subsequent stand that replaces the original stand immediately after the attack, and 3) successive rotations of the subsequent stand in perpetuity.

Primary Inputs:

(1) Total acres affected, categorized by spot size and stand age

(2) Stumpage prices of affected and nonaffected pulpwood and sawtimber

(3) Number of trees affected, number of trees salvaged, and ft³ volume for each d.b.h. class

(4) Acres affected, by spot age category

(5) Normal growing stock volume for each category

(6) All costs and revenues represented by the existing management schedule

Outputs:

(1) Volume affected, by d.b.h. class for sawtimber and pulpwood

(2) Acres affected, by spot age category

(3) Economic damages, by spot size and age class

For further information, contact:

Computer Specialist, or Economist
USDA Forest Service, FPM,
1720 Peachtree Road, N.W., Suite 706
Atlanta, Ga. 30367
Comm. (404) 881-2961, FTS 257-2961

References

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